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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/976,776	10/12/2001	William M. Fries	71715	2210

22242 7590 03/04/2005

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EXAMINER

JASTRZAB, KRISANNE MARIE

ART UNIT PAPER NUMBER

1744

DATE MAILED: 03/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/976,776

Applicant(s)

FRIES ET AL.

Examiner

Krisanne Jastrzab

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-7,9-16 and 18-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-7,9-16 and 18-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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Claims 1, 3-7, 9-16, and 18-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolf in view of both Dunn et al., U.S. patent No. 4,871,559 and Wiese et al., U.S. patent No. 3,971,306.

Wolf teaches treatment of a fluid product to deactivate microorganisms therein by irradiation with light a prescribed range, including 425 and 690 nm. The fluid to be treated is supplied from a first container through an inlet conduit to a flexible treatment container where the fluid is irradiated while flowing therethrough. After treatment in the flexible treatment container, the fluid flows through an outlet conduit to a receiving container. All of the first supply container, the flexible treatment container and the receiving container, can be sealed off and removed from the irradiating apparatus. Pump means are provided to actuate fluid flow through the system. See column 6, lines 28-42, and column 9, lines 25-52.

Dunn et al., teaches treatment of a fluid product with illumination for pathogen deactivation. Dunn teaches monitoring of a plurality of parameters during treatment to ensure the effectiveness thereof, including temperature. Dunn further teaches illumination in the form of pulses of μ s duration at wavelengths including those in the range of 240 to 280 nm. Dunn et al., teach that the use of pulsed light as disclosed is beneficial as compared to other conventional illumination means because it provides higher fluences, a wide spectral range, and high efficiency in the conversion of electric energy to light energy (see column 29, lines 5-20).

Wiese et al., teach the conventionality of measuring parameters pertinent to a sterilizing treatment at the input and output of a flow through treatment system. Wiese

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et al., clearly teach measuring both temperature and pressure at the input and output of the sterilization chamber with a product being treated while flowing therethrough. The double measurement allows comparison of parameters affected by the sterilization process which, are indicative of the effectiveness of the sterilization procedure. See column 3, lines 55-65 and column 4, lines 10-12 and lines 20-33.

It would have been well within the purview of one of ordinary skill in the art to employ pulsed light in the configuration and with the parameters taught in Dunn et al., in the system of Wolf, because such an illumination source provides higher fluences, a wide spectral range, and high efficiency in the conversion of electric energy to light energy. It would further have been well within the purview of one of ordinary skill in the art to employ parameter monitoring at both the input and output of the treatment chamber, because of the recognized conventionality of such measurements in flow-through systems as supported by Wiese et al., to ensure that efficient sterilization is taking place.

With respect to claim 5, it would have been obvious to one of ordinary skill in the art to provide a plurality of collection units for a product to be divided into "batches" for use or for maintaining easily portable units thereof.

Double Patenting

Abandonment of application 09/976,597, previously applied in an obviousness-type double patenting rejection is acknowledged and the rejection is withdrawn.

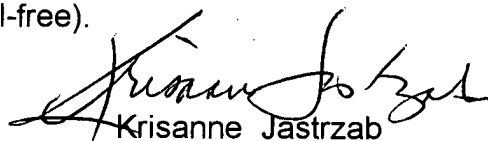
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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krisanne Jastrzab whose telephone number is 571-272-1279. The examiner can normally be reached on Mon.-Wed. 6:30am-4:00pm and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Kim can be reached on 571-272-1142. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Krisanne Jastrzab
Primary Examiner
Art Unit 1744

March 2, 2005